



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,051	03/31/2004	James Gregory Ryan	764164605070(002)	7960
7590	11/08/2006			EXAMINER SWERDLOW, DANIEL
Lorri W. Cooper, Esq. Jones Day North Point 901 Lakeside Avenue Cleveland, OH 44114			ART UNIT 2615	PAPER NUMBER

DATE MAILED: 11/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/815,051	RYAN, JAMES GREGORY	
	<b>Examiner</b>	<b>Art Unit</b>	
	Daniel Swerdlow	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 31 August 2006.
- 2a) This action is **FINAL**.                                   2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 14-16, 18-22 and 24-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 18 and 19 is/are allowed.
- 6) Claim(s) 14-16, 20-22 and 25-33 is/are rejected.
- 7) Claim(s) 24 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date: _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date: _____	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 20 through 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Hueber (US Patent 4,790,019).

3. Regarding Claim 20, Hueber discloses a remote control (Fig. 1) that controls a hearing aid system comprising a hearing aid that corresponds to the hearing instrument claimed (Fig. 7) by: emitting a control signal from remote sound wave control signal emitter (i.e., generating a remote acoustical pulse) (Figs. 1, 1a, 1b; column 2, lines 65-66; column 3, lines 11-14); receiving the control sound signal (i.e., acoustical pulse) through the microphone (12) of the hearing aid that corresponds to the hearing instrument claimed (column 4, lines 37-38); differentiating the pulse type in a detector (20) and determining a sound level bit pattern in a counter (26) and memory (27) (i.e., decoding the acoustical pulse in a program of the hearing instrument) (column 6, lines 16-21); and controlling the amplification of the hearing aid that corresponds to the hearing instrument claimed based on the memory output (i.e., the decoded acoustical pulse) (column 6, lines 21-25). Hueber further discloses that the output of digital filters (i.e., a calculated input) controls a counter (column 6, lines 9-15). Hueber further discloses that the counter is a C-MOS device (column 5, lines 4-7) that inherently disables decoding when inputs fail to exceed a predetermined threshold to activate device functions.

4. Regarding Claim 21, Hueber further discloses a detector (20) counter (26) and memory (27) arrangement that corresponds to the decoding circuit or software claimed.
5. Regarding Claim 22, Hueber further discloses a high-pass filter (14), a rectifier (19) and a detector (20) that distinguishes continuous and pulsating input signals (i.e., low-pass filters the acoustical pulses into base band pulses and determines the time spacing of the base band pulses to verify a pattern associated with a command) (column 4, lines 37-50).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 14 through 16 and 25 through 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hueber in view of Benford (US patent 3,628,499).
8. Regarding Claim 14, Hueber discloses a hearing aid system comprising: a hearing aid that corresponds to the hearing instrument claimed (Fig. 7) and has a microphone (12) and a counter and memory configuration (26, 27) that corresponds to the programming claimed (column 6, lines 21-25); and a remote control (Fig. 1) comprising a pocket carried structural unit that corresponds to the housing claimed (column 1, lines 59-63) and a circuit (Fig. 1) for generating an acoustical pulse (Figs 1a, 1b) for controlling the hearing aid; wherein the counter and memory configuration (26, 27) that corresponds to the programming claimed interprets the pulses to control the hearing aid (column 4, lines 37-64; column 6, lines 16-25). Hueber further

discloses that the output of digital filters (i.e., a calculated input) controls a counter (column 6, lines 9-15). Hueber further discloses that the counter is a C-MOS device (column 5, lines 4-7) that inherently requires control inputs to exceed a predetermined threshold to activate device functions. Therefore, Hueber anticipates all elements of Claim 13 except mechanical generation of the acoustic pulses. Benford discloses an acoustical signal generator (Fig. 1) that mechanically produces timed acoustical pulses of a particular frequency (column 3, lines 63-66). Benford further discloses that such an arrangement provides for operation without electric power, inexpensive production and convenience in carrying (abstract). It would have been obvious to one skilled in the art at the time of the invention to apply the mechanical controller taught by Benford to the hearing aid system taught by Hueber for the purpose of realizing the aforesaid advantages.

9. Regarding Claim 15, Hueber further discloses a detector (20) counter (26) and memory (27) arrangement that corresponds to the decoding circuit or software claimed.

10. Regarding Claim 16, Hueber further discloses a high-pass filter (14), a rectifier (19) and a detector (20) that corresponds to the low-pass filter claimed and distinguishes continuous and pulsating input signals (i.e., transforms the acoustical pulses into base band pulses and measures the time spacing of the pulses to verify a pattern associated with a command) (column 4, lines 37-50).

11. Regarding Claim 25, Benford further discloses a case (Fig. 4, reference 71; column 5, lines 34-36) that corresponds to the housing claimed and a mechanism (column 2, line 56-column 3, line 5).

12. Regarding Claim 26, Benford further discloses a card 78 that corresponds to the finger actuatable member claimed and a tone arm 82 that corresponds to the reed claimed.
13. Regarding Claim 27, Benford further discloses an actuator gear 81 that corresponds to the cogged wheel and a tone arm 82 that corresponds to the reed claimed (column 5, lines 53-60).
14. Regarding Claim 28, Benford further discloses a pair of actuator gears (81, 84) that corresponds to the plurality of cogged wheels claimed and tone arms (82, 86) that correspond to the reeds claimed (column 5, lines 53-60).
15. Regarding Claim 29, the duplication of parts for duplication of effect without unexpected result is not patentable over prior art. In this case, additional elements would simply provide additional control tones. See *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).
16. Regarding Claim 30, Benford further discloses a card 78 that corresponds to the sliding push button claimed with sprocket holes 77 and actuator gears (81, 84) cogs that correspond to the surface treatment claimed (column 5, lines 39-45).
17. Regarding Claim 31, Benford further discloses tone arms (82, 86) that correspond to the reeds claimed (column 5, lines 53-60).
18. Regarding Claim 32, the duplication of parts for duplication of effect without unexpected result is not patentable over prior art. In this case, additional elements would simply provide additional control tones. See *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).
19. Regarding Claim 33, the housing indicia claimed are non-functional and have no patentable weight.

20. Claims 18 and 19 are allowed.
21. Regarding Claim 18, applicant has rewritten the claim in independent form incorporating all limitations of its base claim and the intervening claims. As such, the claim is allowable for the reasons stated in the prior Office action.
22. Claim 19 is allowable due to dependence from Claim 18.
23. Claim 24 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
24. Regarding Claim 24, the claim incorporates limitations indicated as allowable matter in the prior Office action with respect to Claim 23.

***Response to Arguments***

25. Applicant's arguments filed 31 August 2006 have been fully considered but they are not persuasive.
26. Applicant alleges that Hueber fails to disclose disabling programming based on whether a calculated level exceeds a predetermined threshold. Examiner respectfully disagrees. The use of digital filters in Hueber results in calculated representations of frequency dependent signal energy. These outputs are presented to a C-MOS counter that inherently applies predetermined logic level thresholds.

***Conclusion***

27. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Swerdlow whose telephone number is 571-272-7531. The examiner can normally be reached on Monday through Friday between 7:30 AM and 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh H. Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Daniel Swerdlow  
Primary Examiner  
Art Unit 2615

ds  
3 November 2006